scientific investigator to find for himself a reasonably circumscribed topic of research, and to mature conclusions much needed in the formation of an intelligent public opinion.

EDWARD D. JONES.

Principles of Depreciation. By EARL A. SALIERS. Ronald Accounting Series. (New York: The Ronald Press Company. 1915. Pp. 200. $2.50.)

This book is exceedingly difficult to evaluate satisfactorily. It follows in the main the ideas and classifications generally accepted by the accounting profession, and will doubtless be favorably received by American professional accountants. It is the first comprehensive work on depreciation presented by an American writer, and for this reason alone is interesting. It will be useful as a handbook or as an introductory textbook, and it will serve in further emphasizing the importance of regular depreciation allowance in industrial management.

There are 16 regular chapters, an additional chapter explaining the use of logarithms, one giving a selected bibliography on depreciation, a detailed table of contents, and a fairly adequate index. The principal text is divided into three parts: I, Theory; II, Practical Applications; III, Determining the Depreciation Charge. Part I (5 chapters) takes up in turn the character of industrial plant, analysis of hydro-electric plant, plant register, depreciation reserves versus depreciation funds, and depreciation and efficiency. Part II (4 chapters) covers regulation by court and commissions, the income tax, valuations, and land in valuations. Part III (7 chapters) takes up the methods of depreciation, the straight line method, the reducing balance method, the sinking fund method, the annuity method, the equal annual payment method, and the unit cost method.

The author's general view of depreciation is expressed most clearly in the following passages: The "loss of value, whether tangible or intangible in form, resulting from physical decay, or from obsolescence or inadequacy, which indicate functional decay, is known as depreciation" (p. 22). "Depreciation charges are adjustments made at the end of a period to remedy discrepancies between book accounts and the things whose values they indicate" (p. 49). "Two different things should be done, *viz.*: (1) write down book values to actual values, carrying the amount written off to the Profit and Loss account, and (2) provide funds to re-

place the assets when worn out" (p. 50). The effect of these provisions is that "the reserve for depreciation indicates the extent to which at any time the composite depreciation of the entire plant has progressed" (p. 47).

The author's view as thus expressed is clearly that the function of depreciation accounting is to adjust book values to real values in the business, but he does not consistently hold to that view. On pages 21 and 22 he states "good accounting is based upon the distinction between capital and revenue. The integrity of all investment rests upon this principle. Unless it is adhered to, investment and income are obscurely merged. As a result capital is frittered away as dividends and the financial foundations of the company are weakened." These are excellent sentiments, but as to clear-cut fundamental ideas, would the author use "investment," "capital," and "value" as synonymous terms? In discussing the depreciation reserve, he speaks of it as *replacement* reserve, and the idea emerges that the function of depreciation is to provide funds for the replacement of plant (pp. 26, 99). Certainly providing for the decline in plant value and providing for replacement of existing plant are not the same thing, though, of course, in certain cases they may be.

Other inconsistencies appear, if the author's purpose is really to show actual values. He is unwilling to write up the book figures when there has been an increase in unit prices of plant, or an advance in real estate values, or when there is good-will due to large earning power of the business. Further, if he intends to show the value of individual plant units, he suggests the wrong method of calculating depreciation. While he emphasizes that the method employed should be determined by the special circumstances of the case, yet he clearly implies that he prefers the straight line or the reducing balance method, and that he fundamentally objects to the sinking fund method.[1] The straight line method writes down plant cost in equal annual amounts during the life of the plant; the reducing balance method writes off diminishing portions; the sinking fund method provides for increasing portions. While it might seem that the sinking fund method would make inadequate allowance for depreciation during the early life

[1] The annuity and equal annual payment methods are really the same and are in turn equivalent to the sinking fund method. This fact seems not to have been observed by the author. See the reviewer's discussion of the sinking fund and equal annual payment method (*Journal of Accountancy*, August, 1915).

of the plant and would make the burden too heavy in the later years, yet, if we seek actual value, then in so far as book items may be adjusted to real values, it presents the facts more accurately than any other method. If we were to assume a large, free market for second-hand plant, we should find that unit values diminish in increasing proportion with age. This is due to the fact that at every point the value of a unit would be equal to the discounted net future earnings that it represents; thus the decline in value would augment from year to year. This fact appears clearly in the valuation of bond premiums.

The question may be raised whether the accepted practice in depreciation accounting, even if not directly admitted in discussion, is anything more than *a method of distributing recurring plant costs to the operating account of the business?* Does the author really mean to show actual unit values? Ideally, of course, it appears attractive to base depreciation on values and thus really keep "capital" intact. Practically, however, such procedure would be difficult to carry out, and it is questionable whether it would serve as good a purpose as the mere distribution of costs. Of course, the procedure adopted must depend on what one wishes to show. The primary purpose, however, is usually to show costs—actual investment and actual expense of operation—and therefore the basis of depreciation charges should be cost. This view is usually followed, and in public utility accounting it would seem to be dictated by desirable public policy. In unregulated business, however, adjustments might well be made to indicate also the actual values in the concern.

The author has attempted too much in the compass of his little book, and consequently has presented an inadequate treatment of much of his subject-matter. This criticism appears particularly true of his classification of hydro-electric plant, his survey of English income tax decisions, his review of American court decisions on depreciation, and more especially of his discussion on valuation.

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Business Economics. By Ernest L. Bogart. (Chicago: La Salle Extension University. 1915. Pp. viii, 268.)

The word economics usually implies a treatise covering at least the fundamentals of economic science. One would therefore expect to find in this textbook—for it is professedly a textbook—